

[illegible]

(1) GENERAL INFORMATION:

(i) APPLICANT: Monforte, Joseph A.
Becker, Christopher H.
Shaler, Thomas A.
Pollart, Daniel J.

(ii) TITLE OF INVENTION: OLIGONUCLEOTIDE SIZING USING CLEAVABLE PRIMERS

(iii) NUMBER OF SEQUENCES: 19

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Arnold, White & Durkee
(B) STREET: P.O. Box 4433
(C) CITY: Houston
(D) STATE: TX
(E) COUNTRY: USA
(F) ZIP: 77210-4433

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: US Unknown
(B) FILING DATE: Concurrently Herewith
(C) CLASSIFICATION: Unknown

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/639,363
(B) FILING DATE: 26-APR-1996

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/445,751
(B) FILING DATE: 22-MAY-1995

(viii) ATTORNEY/AGENT INFORMATION:

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(B) REGISTRATION NUMBER: 34,430
(C) REFERENCE/DOCKET NUMBER: GETR:031

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (512) 418-3000
(B) TELEFAX: (512) 474-7577

(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 16 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (ix) FEATURE:
 - (A) NAME/KEY: misc_feature
 - (B) LOCATION: 9..10
 - (D) OTHER INFORMATION: /note= "sequence contains phosphoramidate bond between nucleotides 9 and 10"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

TTCATGCAAT CCGATG

16

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (ix) FEATURE:
 - (A) NAME/KEY: misc_feature
 - (B) LOCATION: 16..17
 - (D) OTHER INFORMATION: /note= "primer containing a first region with an immobilization attachment site, a cleavable site "x" between nucleotides 16 and 17"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

ACTCCTGTGG AGAACTCTGC

20

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

GCAGAGTTCT CCACAGGAGT

20

(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

ACTCCTGTGG AGAACT

16

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

ACCATCGACG AGAAAGGGA

19

(2) INFORMATION FOR SEQ ID NO:6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Thr Ile Asp Glu Lys Gly Thr
1 5

663330"9666760

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 19 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

ACCATCGACA AGAAAGGGA

19

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 7 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Thr Ile Asp Lys Lys Gly Thr
1 5

(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 19 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ix) FEATURE:

- (A) NAME/KEY: misc_feature
- (B) LOCATION: 7..15
- (D) OTHER INFORMATION: /note= "N = G, A, C or T"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

ACGACANCCA TGCANACC

19

(2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 17 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (ix) FEATURE:
 - (A) NAME/KEY: misc_feature
 - (B) LOCATION: 9..10
 - (D) OTHER INFORMATION: /note= "probe contains a cleavable ribose at position 10 from 5' end (position 7 from 3' end)"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

AAATACATCG CTTGAAC

17

(2) INFORMATION FOR SEQ ID NO:11:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (ix) FEATURE:
 - (A) NAME/KEY: misc_feature
 - (B) LOCATION: 9..10
 - (D) OTHER INFORMATION: /note= "18-mer is biotinylated at 5' end and contains a ribose at position 10 from 5' end"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

ATCTTCCTGG CAAACTCA

18

(2) INFORMATION FOR SEQ ID NO:12:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 22 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)

00439386-03299
00530-988260

(ix) FEATURE:
 (A) NAME/KEY: misc_feature
 (B) LOCATION: 17..18
 (D) OTHER INFORMATION: /note= "reverse primer contains a
5'-(S)thymidine at position 18"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

CACACAGGAA ACAGCTATGA CC

22

(2) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:
 (A) NAME/KEY: misc_feature
 (B) LOCATION: 16..17
 (D) OTHER INFORMATION: /note= "intermediary
oligonucleotide is biotinylated at 3' end"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

TAGCTGTTTC CTGTGTG

17

(2) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 73 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:
 (A) NAME/KEY: misc_feature
 (B) LOCATION: 51..68
 (D) OTHER INFORMATION: /note= "priming region corresponds
to nucleotides 51-68; C and G of interest at positions 35 and
32, respectively"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

CAGCTTTTGT TCCCTTTAGT GAGGGTTAAT TGCGCGCTTG GCGTAATCAT GGTCATAGCT

60

GTTTCCTGTG TGA

73

00500:9866T60

(2) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 73 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:

- (A) NAME/KEY: misc_feature
- (B) LOCATION: 51..68
- (D) OTHER INFORMATION: /note= "priming region corresponds to nucleotides 51-68; mutations at positions 35 (A) and 32 (T)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

CAGCTTTTGT TCCCTTTAGT GAGGGTTAAT TTCGAGCTTG GCGTAATCAT GGTCATAGCT	60
GTTTCCTGTG TGA	73

(2) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:

- (A) NAME/KEY: misc_feature
- (B) LOCATION: 13..14
- (D) OTHER INFORMATION: /note= "primer is biotinylated at 5' end and contains a 5' (S)- thymidine at position 14"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

CAGGAAACAG CTATGACC	18
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(2) INFORMATION FOR SEQ ID NO:17:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 45 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

ATGATTACGC CAAGCGCGCA ATTAACCCTC ACTAAAGGGA ACAAA

45

(2) INFORMATION FOR SEQ ID NO:18:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 45 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

ATGATTACGC CAAGCTCGAA ATTAACCCTC ACTAAAGGGA ACAAA

45

(2) INFORMATION FOR SEQ ID NO:19:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 19 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:

- (A) NAME/KEY: misc_feature
- (B) LOCATION: 7..8
- (D) OTHER INFORMATION: /note= "the primer contains a 1:1 mixture of dT and dG incorp. at positions 7 and 15"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

ACGACATCCA TGCATCACC

19

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